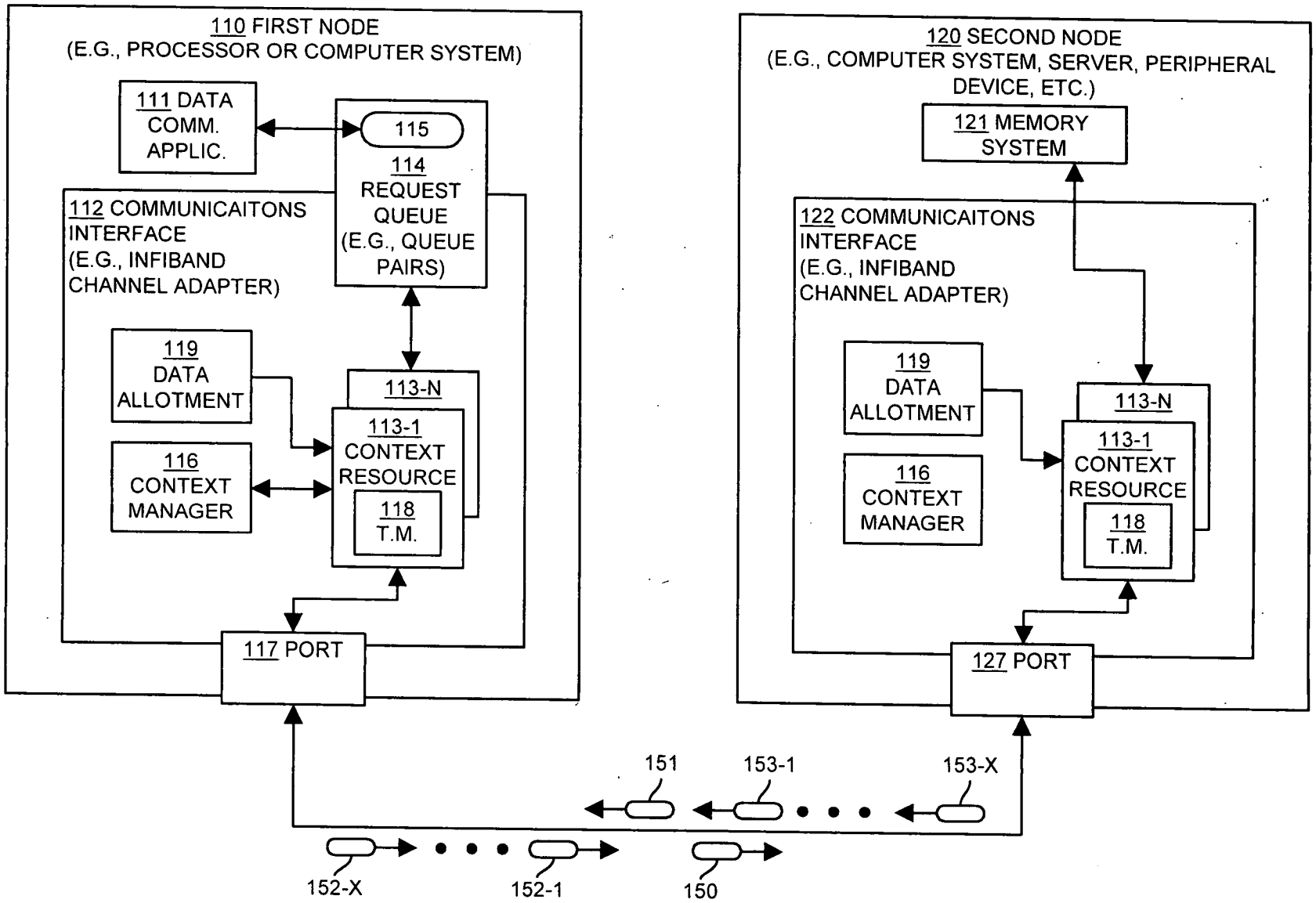
110 FIRST NODE
(E.G., PROCESSOR OR COMPUTER SYSTEM)
111 DATA COMM. APPLIC.
115
114 REQUEST QUEUE (E.G., QUEUE PAIRS)
112 COMMUNICAITONS INTERFACE (E.G., INFIBAND CHANNEL ADAPTER)
119 DATA ALLOTMENT
113-N
113-1 CONTEXT RESOURCE
118 T.M.
116 CONTEXT MANAGER
117 PORT
120 SECOND NODE
(E.G., COMPUTER SYSTEM, SERVER, PERIPHERAL DEVICE, ETC.)
121 MEMORY SYSTEM
122 COMMUNICAITONS INTERFACE (E.G., INFIBAND CHANNEL ADAPTER)
119 DATA ALLOTMENT
113-N
113-1 CONTEXT RESOURCE
118 T.M.
116 CONTEXT MANAGER
127 PORT
151
153-1
153-X
152-X
152-1
150

FIG. 1

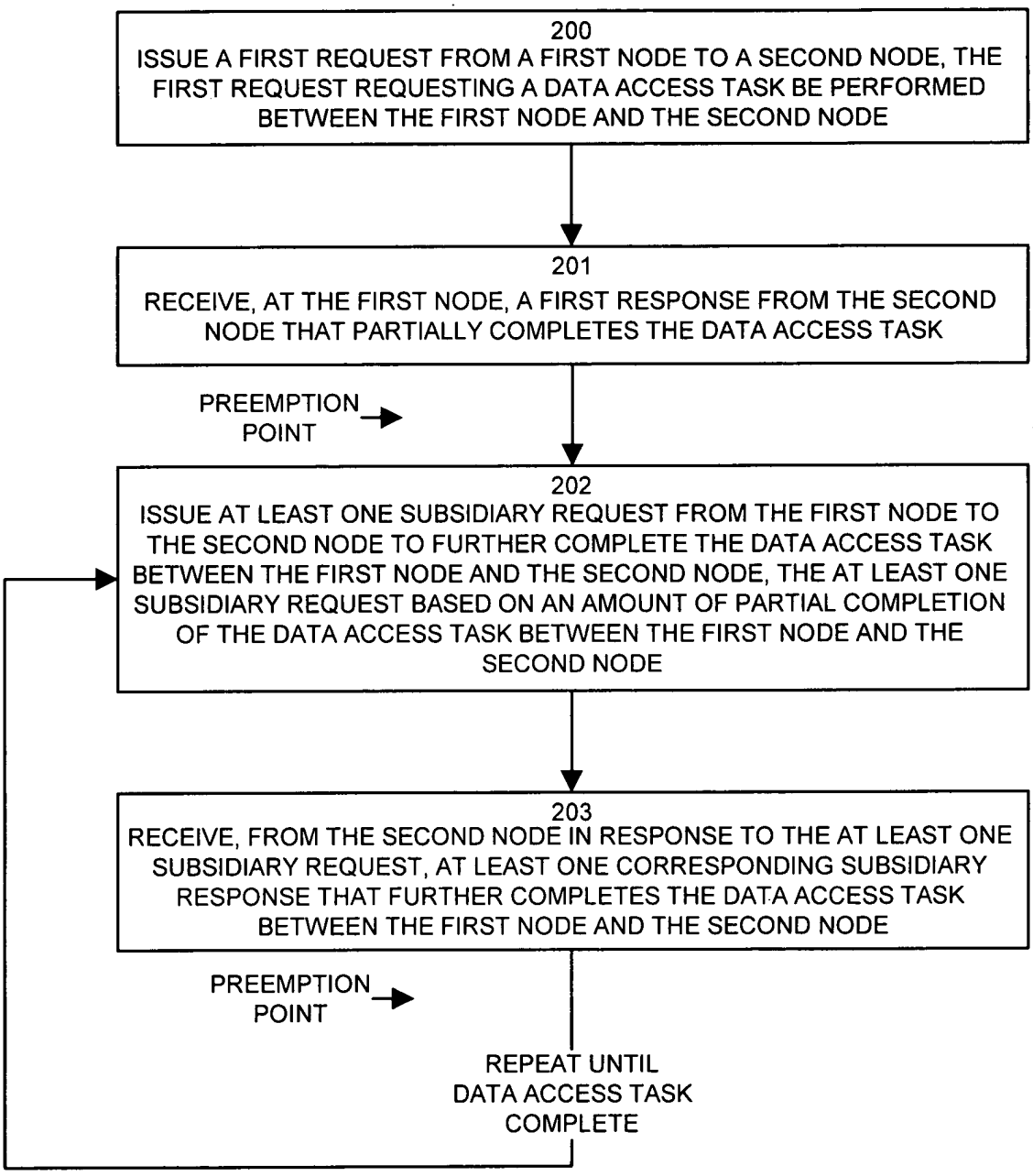
200
ISSUE A FIRST REQUEST FROM A FIRST NODE TO A SECOND NODE, THE FIRST REQUEST REQUESTING A DATA ACCESS TASK BE PERFORMED BETWEEN THE FIRST NODE AND THE SECOND NODE
201
RECEIVE, AT THE FIRST NODE, A FIRST RESPONSE FROM THE SECOND NODE THAT PARTIALLY COMPLETES THE DATA ACCESS TASK
PREEMPTION POINT
202
ISSUE AT LEAST ONE SUBSIDIARY REQUEST FROM THE FIRST NODE TO THE SECOND NODE TO FURTHER COMPLETE THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE, THE AT LEAST ONE SUBSIDIARY REQUEST BASED ON AN AMOUNT OF PARTIAL COMPLETION OF THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE
203
RECEIVE, FROM THE SECOND NODE IN RESPONSE TO THE AT LEAST ONE SUBSIDIARY REQUEST, AT LEAST ONE CORRESPONDING SUBSIDIARY RESPONSE THAT FURTHER COMPLETES THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE
PREEMPTION POINT
REPEAT UNTIL DATA ACCESS TASK COMPLETE

FIG. 2

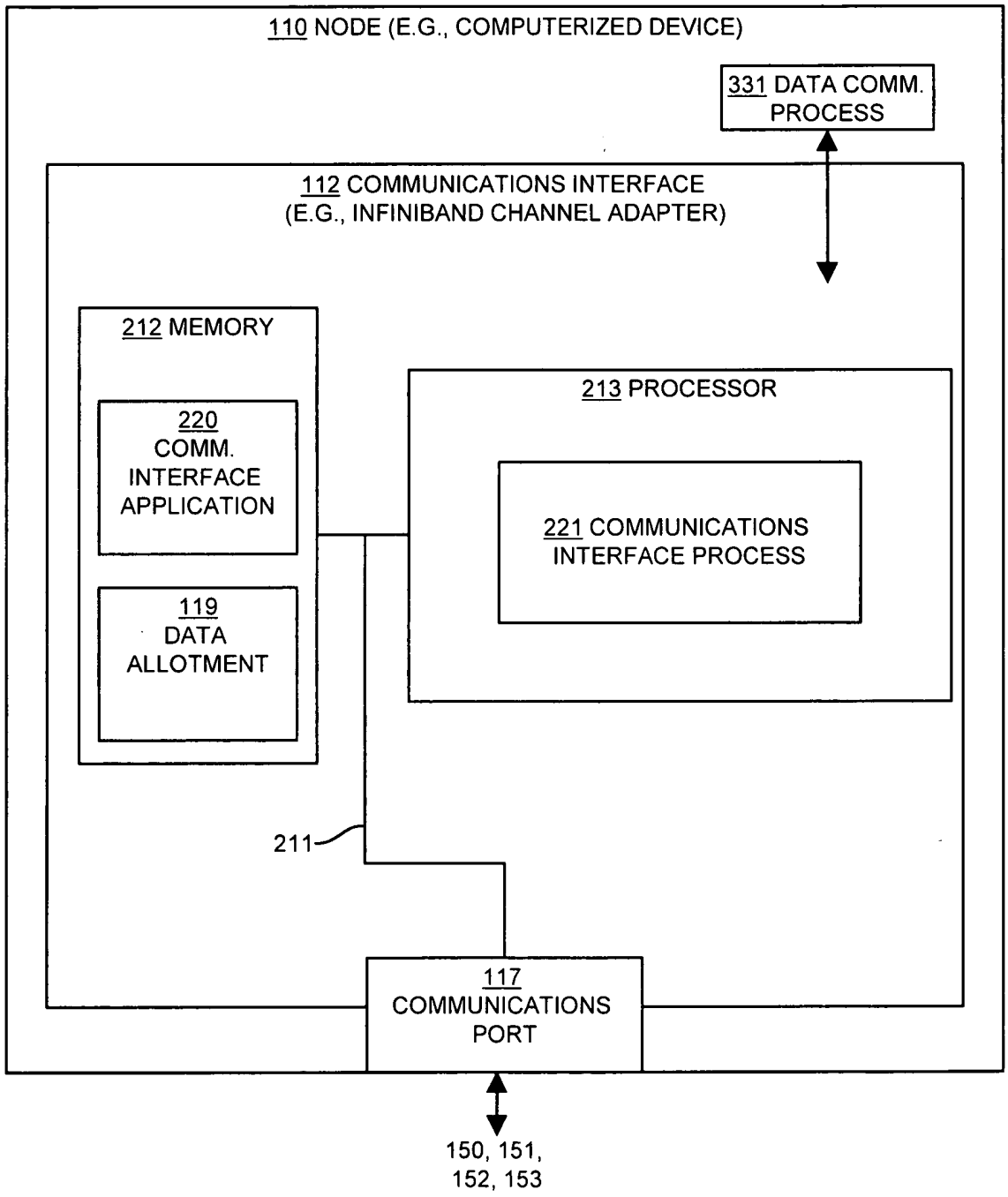
110 NODE (E.G., COMPUTERIZED DEVICE)
331 DATA COMM. PROCESS
112 COMMUNICATIONS INTERFACE (E.G., INFINIBAND CHANNEL ADAPTER)
212 MEMORY
220 COMM. INTERFACE APPLICATION
119 DATA ALLOTMENT
213 PROCESSOR
221 COMMUNICATIONS INTERFACE PROCESS
211
117 COMMUNICATIONS PORT
150, 151, 152, 153

FIG. 3

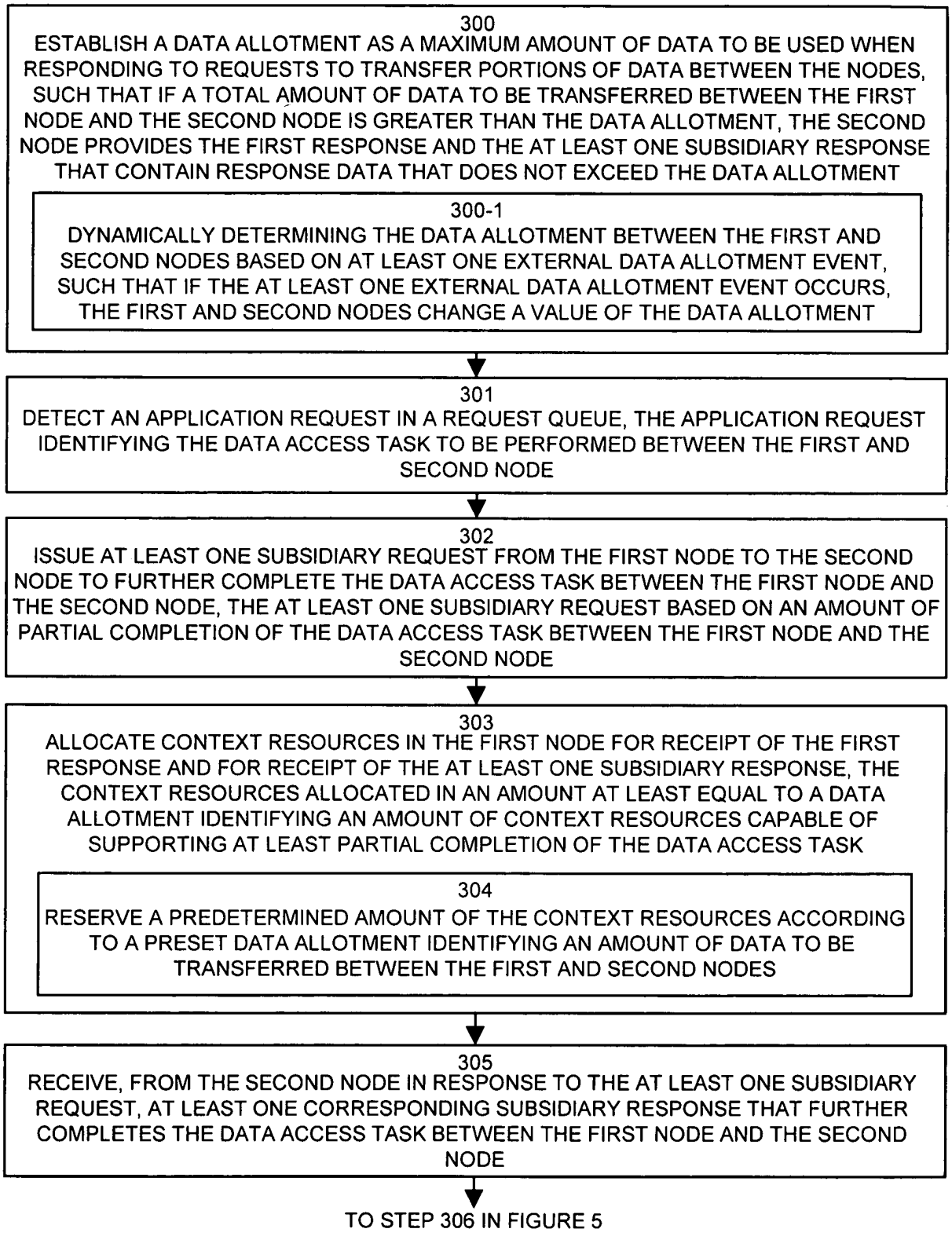
300
ESTABLISH A DATA ALLOTMENT AS A MAXIMUM AMOUNT OF DATA TO BE USED WHEN RESPONDING TO REQUESTS TO TRANSFER PORTIONS OF DATA BETWEEN THE NODES, SUCH THAT IF A TOTAL AMOUNT OF DATA TO BE TRANSFERRED BETWEEN THE FIRST NODE AND THE SECOND NODE IS GREATER THAN THE DATA ALLOTMENT, THE SECOND NODE PROVIDES THE FIRST RESPONSE AND THE AT LEAST ONE SUBSIDIARY RESPONSE THAT CONTAIN RESPONSE DATA THAT DOES NOT EXCEED THE DATA ALLOTMENT
300-1
DYNAMICALLY DETERMINING THE DATA ALLOTMENT BETWEEN THE FIRST AND SECOND NODES BASED ON AT LEAST ONE EXTERNAL DATA ALLOTMENT EVENT, SUCH THAT IF THE AT LEAST ONE EXTERNAL DATA ALLOTMENT EVENT OCCURS, THE FIRST AND SECOND NODES CHANGE A VALUE OF THE DATA ALLOTMENT
301
DETECT AN APPLICATION REQUEST IN A REQUEST QUEUE, THE APPLICATION REQUEST IDENTIFYING THE DATA ACCESS TASK TO BE PERFORMED BETWEEN THE FIRST AND SECOND NODE
302
ISSUE AT LEAST ONE SUBSIDIARY REQUEST FROM THE FIRST NODE TO THE SECOND NODE TO FURTHER COMPLETE THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE, THE AT LEAST ONE SUBSIDIARY REQUEST BASED ON AN AMOUNT OF PARTIAL COMPLETION OF THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE
303
ALLOCATE CONTEXT RESOURCES IN THE FIRST NODE FOR RECEIPT OF THE FIRST RESPONSE AND FOR RECEIPT OF THE AT LEAST ONE SUBSIDIARY RESPONSE, THE CONTEXT RESOURCES ALLOCATED IN AN AMOUNT AT LEAST EQUAL TO A DATA ALLOTMENT IDENTIFYING AN AMOUNT OF CONTEXT RESOURCES CAPABLE OF SUPPORTING AT LEAST PARTIAL COMPLETION OF THE DATA ACCESS TASK
304
RESERVE A PREDETERMINED AMOUNT OF THE CONTEXT RESOURCES ACCORDING TO A PRESET DATA ALLOTMENT IDENTIFYING AN AMOUNT OF DATA TO BE TRANSFERRED BETWEEN THE FIRST AND SECOND NODES
305
RECEIVE, FROM THE SECOND NODE IN RESPONSE TO THE AT LEAST ONE SUBSIDIARY REQUEST, AT LEAST ONE CORRESPONDING SUBSIDIARY RESPONSE THAT FURTHER COMPLETES THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE
TO STEP 306 IN FIGURE 5

FIG. 4

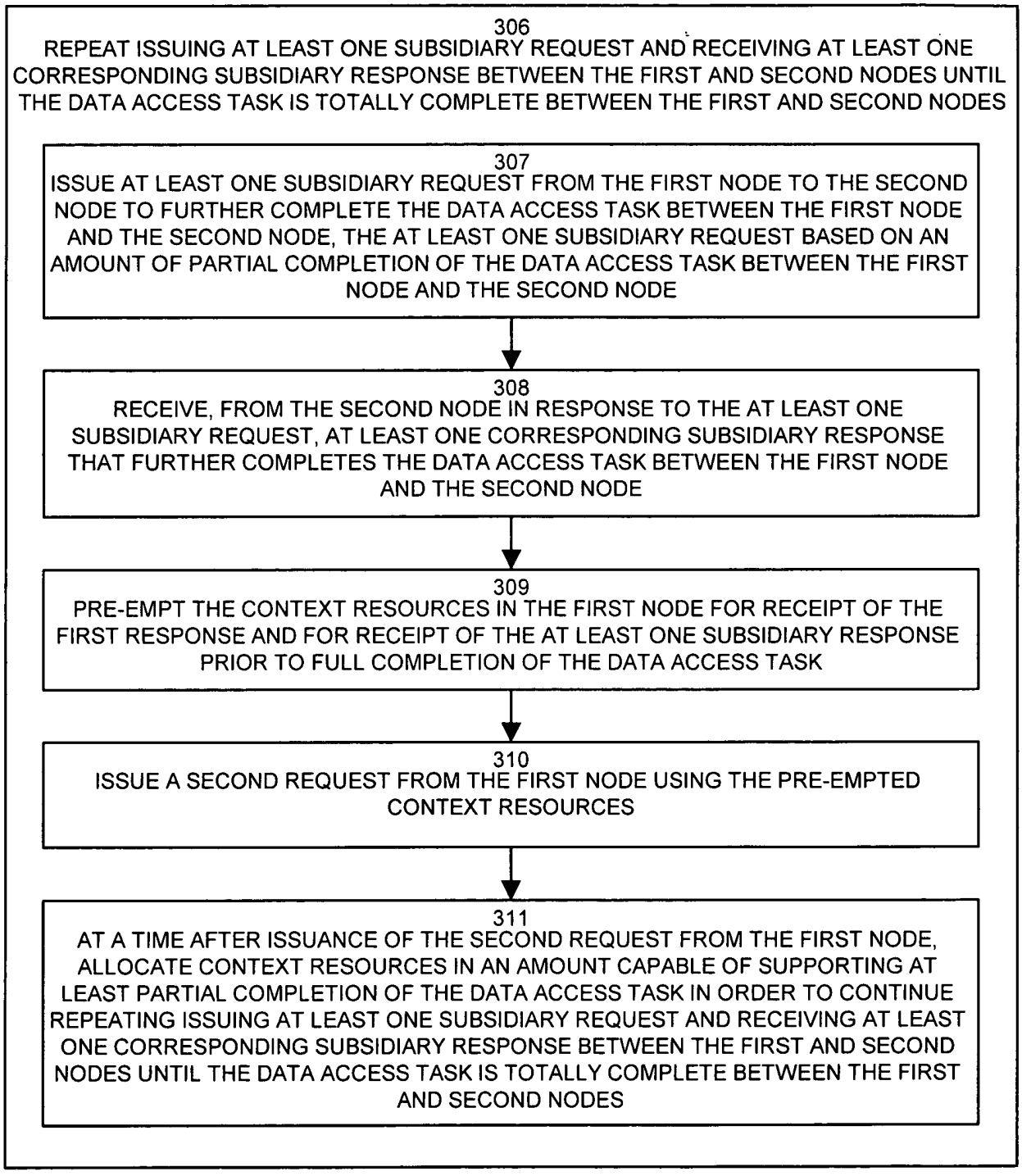
306
REPEAT ISSUING AT LEAST ONE SUBSIDIARY REQUEST AND RECEIVING AT LEAST ONE CORRESPONDING SUBSIDIARY RESPONSE BETWEEN THE FIRST AND SECOND NODES UNTIL THE DATA ACCESS TASK IS TOTALLY COMPLETE BETWEEN THE FIRST AND SECOND NODES
307
ISSUE AT LEAST ONE SUBSIDIARY REQUEST FROM THE FIRST NODE TO THE SECOND NODE TO FURTHER COMPLETE THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE, THE AT LEAST ONE SUBSIDIARY REQUEST BASED ON AN AMOUNT OF PARTIAL COMPLETION OF THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE
308
RECEIVE, FROM THE SECOND NODE IN RESPONSE TO THE AT LEAST ONE SUBSIDIARY REQUEST, AT LEAST ONE CORRESPONDING SUBSIDIARY RESPONSE THAT FURTHER COMPLETES THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE
309
PRE-EMPT THE CONTEXT RESOURCES IN THE FIRST NODE FOR RECEIPT OF THE FIRST RESPONSE AND FOR RECEIPT OF THE AT LEAST ONE SUBSIDIARY RESPONSE PRIOR TO FULL COMPLETION OF THE DATA ACCESS TASK
310
ISSUE A SECOND REQUEST FROM THE FIRST NODE USING THE PRE-EMPTED CONTEXT RESOURCES
311
AT A TIME AFTER ISSUANCE OF THE SECOND REQUEST FROM THE FIRST NODE, ALLOCATE CONTEXT RESOURCES IN AN AMOUNT CAPABLE OF SUPPORTING AT LEAST PARTIAL COMPLETION OF THE DATA ACCESS TASK IN ORDER TO CONTINUE REPEATING ISSUING AT LEAST ONE SUBSIDIARY REQUEST AND RECEIVING AT LEAST ONE CORRESPONDING SUBSIDIARY RESPONSE BETWEEN THE FIRST AND SECOND NODES UNTIL THE DATA ACCESS TASK IS TOTALLY COMPLETE BETWEEN THE FIRST AND SECOND NODES

FIG. 5

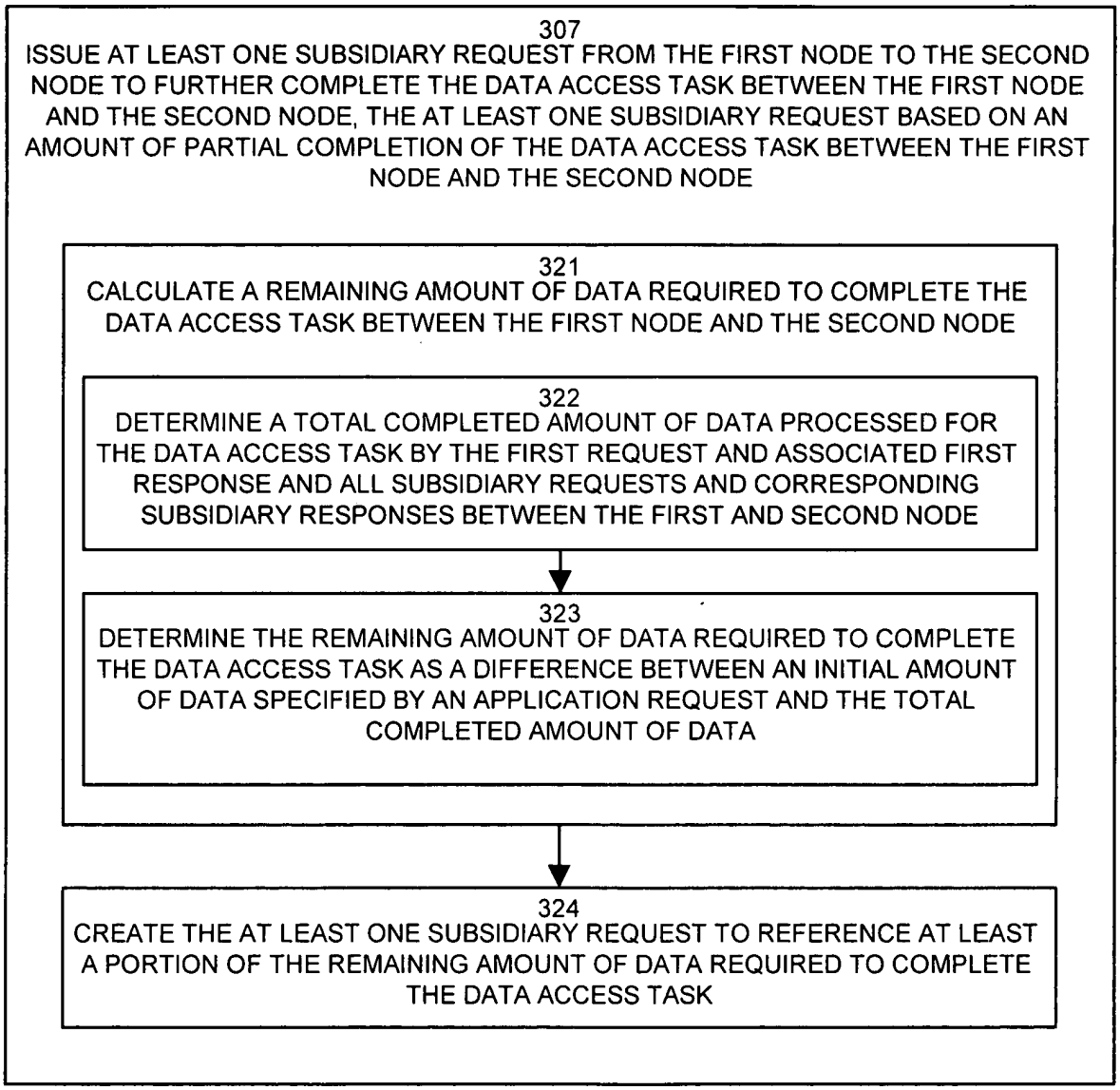
307
ISSUE AT LEAST ONE SUBSIDIARY REQUEST FROM THE FIRST NODE TO THE SECOND NODE TO FURTHER COMPLETE THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE, THE AT LEAST ONE SUBSIDIARY REQUEST BASED ON AN AMOUNT OF PARTIAL COMPLETION OF THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE
321
CALCULATE A REMAINING AMOUNT OF DATA REQUIRED TO COMPLETE THE DATA ACCESS TASK BETWEEN THE FIRST NODE AND THE SECOND NODE
322
DETERMINE A TOTAL COMPLETED AMOUNT OF DATA PROCESSED FOR THE DATA ACCESS TASK BY THE FIRST REQUEST AND ASSOCIATED FIRST RESPONSE AND ALL SUBSIDIARY REQUESTS AND CORRESPONDING SUBSIDIARY RESPONSES BETWEEN THE FIRST AND SECOND NODE
323
DETERMINE THE REMAINING AMOUNT OF DATA REQUIRED TO COMPLETE THE DATA ACCESS TASK AS A DIFFERENCE BETWEEN AN INITIAL AMOUNT OF DATA SPECIFIED BY AN APPLICATION REQUEST AND THE TOTAL COMPLETED AMOUNT OF DATA
324
CREATE THE AT LEAST ONE SUBSIDIARY REQUEST TO REFERENCE AT LEAST A PORTION OF THE REMAINING AMOUNT OF DATA REQUIRED TO COMPLETE THE DATA ACCESS TASK

FIG. 6